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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,558	01/25/2001	Uzi Shvadron	IL9-2000-0083US1	5143

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EXAMINER	
PHAM, TUAN	

ART UNIT	PAPER NUMBER
2643	4

DATE MAILED: 02/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/768,558	SHVADRON, UZI	
	Examiner	Art Unit	
	TUAN A PHAM	2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 January 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-2, and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Frantz (U.S. Patent No. 6,167,043).

Regarding claim 1, Frantz teaches an adapter for enabling existing telephone equipment to be connected to a Digital Subscriber Loop (DSL) link (see figure 1, adapter unit 14), the adapter being connected between a telephone equipment and existing telephone wiring (see figure 1, adapter unit 14, PSTN 6, traditional telephone 16, col.3, ln.1-15) and communicating with an Integrated Access Device (IAD)(i.e., PC

circuit) digitally, the IAD being connected to the existing telephone wiring and controlling communications with each adapter (see figure 1, PC circuit 10, col.5, ln.15-50).

Regarding claim 2, Frantz further teaches the adapter wherein each adapter is assigned its own slot in which data is transmitted and an additional slot, controlled by the IAD, is devoted to control data (see col.7, ln.20-60).

Regarding claim 4, Frantz further teaches the adapter wherein communication using the existing wiring is above a spectrum assigned to DSL, the adapter including frequency shifters (i.e., modulator) for shifting frequencies of transmitted and received signals (see col.3, ln.15-24).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 3, and 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frantz (U.S. Patent No. 6,167,043) in view of Tuutijarvi et al. (U.S. Patent No. 5,870,675, hereinafter, "Tuutijarvi").

Regarding claim 3, Frantz further teaches an adapter for enabling existing telephone equipment to be connected to a Digital Subscriber Loop (DSL) link (see figure 1, adapter unit 14), the adapter being connected between a telephone equipment and

existing telephone wiring (see figure 1, adapter unit 14, PSTN 6, traditional telephone 16, col.3, ln.1-15) and communicating with an Integrated Access Device (IAD)(i.e., PC circuit) digitally, the IAD being connected to the existing telephone wiring and controlling communications with each adapter (see figure 1, PC circuit 10, col.5, ln.15-50).

It should be noticed that Frantz fails to clearly teach the adapter wherein the slots assigned to the adapter and the IAD are time slots. However. Tuutijarvi teaches such features (see col.1, ln.10-15) for a purpose of improving handover in reception and transmission in a telephone system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the slots assigned to the adapter and the IAD are time slots, as taught by Tuutijarvi, into view of Frantz in order to control data in reception and transmission in a telephone system.

Regarding claim 5, Tuutijarvi further teaches the adapter wherein voice data is transmitted using Pulse Code Modulation (PCM) (see col.1, ln.35-42).

Regarding claim 6, Tuutijarvi further teaches the adapter further comprising: line bridge making a connection to the existing telephone wiring; phone Digital Access Arrangement (DAA) making a connection to the telephone equipment; a first analog-to-digital (A/D) converter connected to the DAA, an analog signal from the telephone equipment being sampled and buffered by the first A/D converter to produce a digital signal; an encoder connected to receive an output signal from the first A/D converter and providing an encoded output; a first digital-to-analog (D/A) converter connected to the encoder and generating an analog signal; a first frequency shifter connected to the

first D/A converter shifting the analog signal into a digital voice band; a first filter connected between the first frequency shifter and the line bridge for filtering the shifted analog signal before going out on the telephone line via line; a second filter connected to the line bridge for filtering an incoming analog signal from the line bridge in order to extract a digital voice band signal; a second frequency shifter connected to the second filter for down shifting the filtered signal to base band; a second A/D converter connected to the second frequency shifter converting shifted signal to a digital domain; a decoder connected to the second A/D converter for decoding the converted signal; and a second D/A converter connected between the decoder and the DAA for converting the digital signal to an analog signal supplied to the telephone equipment (see figure 3, A/D 1, encoder 2, Burst 6, modulator 7, D/A, A/D, demodulator 11, decoder 16, D/A 17).

Regarding claim 7, Tuutijarvi further teaches the adapter further comprising: a burst transmitter connected to receive the digital signal from the A/D converter and supply an output to the encoder; and a burst receiver connected to the decoder and providing an output to the second D/A converter (see figure 3, A/D 1, encoder 2, Burst 6, modulator 7, D/A).

Regarding claim 8, Tuutijarvi further teaches the adapter wherein the burst transceiver, the encoder, the decoder, and the burst receiver are implemented in a Digital Signal Processor (DSP), the DSP including control logic which monitors the line and synchronizes bursts of incoming and outgoing symbols (see figure 3, control 19).

Regarding claim 9, Tuutijarvi further teaches the adapter wherein the control logic enables the IAD to control each adapter through information sent during the control slot and acknowledges information received for the adapter (see col.2, ln.25-46).

Regarding claim 10, Tuutijarvi further teaches the adapter wherein the encoder produces the digital Quadrature Amplitude Modulation (QAM) symbols and the decoder decodes QAM symbols (see col.2, ln.1-26).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In order to expedite the prosecution of this application, the applicants are also requested to consider the following references. Although Kaku et al. (U.S. Patent No. 5,896,420), Grau et al. (U.S. Patent No. 5,862,451), Brown (U.S. Patent No. 6,226,356), and Fujiwara (U.S. Patent No. 5,151,923) are not applied into this Office Action, they are also called to Applicants attention. They may be used in future Office Action(s). These references are also concerned for supporting the system and method for providing data and voice services on the telephone line and voice frequency communication apparatus.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tuan A. Pham** whose telephone number is (703) 305-4987 and E-mail address is: **tuan.pham@USPTO.GOV**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz, can be reached on (703) 305-4708 and

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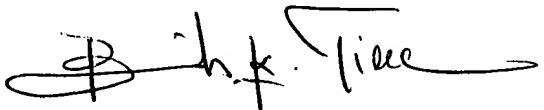
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist, tel. No. 703-305-4700).

Art Unit 2643

Date: February 12, 2004

Examiner

Tuan Pham



BINH TIEU
PRIMARY EXAMINER